

We claim:

- 5 1. A process for the production of a fungicide-tolerant plant by expressing an exogenous fungicide-binding polypeptide in the plant.
- 10 2. A process as claimed in claim 1, wherein the exogenous fungicide-binding polypeptide is a single-chain antibody fragment.
- 15 3. A process as claimed in claim 1, wherein the exogenous fungicide-binding polypeptide is a complete antibody or a fragment derived therefrom.
- 20 4. A process as claimed in claim 1, wherein the fungicide is methyl methoxyimino- α -(o-tolyloxy)-o-tolylacetate (BAS 490F).
- 25 5. A process as claimed in any of claims 1 - 3, wherein the plant is mono- or dicotyledonous.
- 30 6. A process as claimed in claim 5, wherein the plant is tobacco.
7. A process as claimed in any of claims 1 - 6, wherein the exogenous polypeptide is expressed constitutively in the plant.
- 35 8. A process as claimed in any of claims 1 - 6, wherein expression of the exogenous polypeptide in the plant is induced.
9. A process as claimed in any of claims 1 - 6, wherein the exogenous polypeptide is expressed in the leaves of the plant.
- 40 10. A process as claimed in any of claims 1 - 6, wherein the exogenous polypeptide is expressed in the seeds of the plant.
- 45 11. An expression cassette for plants, composed of a promoter, a signal peptide, a gene encoding expression of an exogenous fungicide-binding polypeptide, an ER retention signal and a terminator.

12. An expression cassette as claimed in claim 11, wherein the constitutive promoter used is the CaMV 35S promotor.
- 5 13. An expression cassette as claimed in claim 11, wherein the gene to be expressed is the gene of a single-chain antibody fragment.
- 10 14. An expression cassette as claimed in claim 11, wherein the gene or gene fragment of a fungicide-binding polypeptide in the form of a translation fusion with other functional proteins, for example enzymes, toxins, chromophores and binding proteins, is employed as the gene to be expressed.
- 15 15. An expression cassette as claimed in claim 11, wherein the polypeptide gene to be expressed is obtained from a hybridoma cell or with the aid of other recombinant methods, for example the antibody phage display method.
- 20 16. The use of the expression cassette as claimed in claim 11 for the transformation of dicotyledonous or monocotyledonous plants which constitutively express an exogenous fungicide-binding polypeptide seed- or leaf-specifically.
- 25 17. The use as claimed in claim 16, wherein the expression cassette is transferred into a bacterial strain and the resulting recombinant clones are used for the transformation of the dicotyledonous or monocotyledonous plants which constitutively express an exogenous fungicide-binding polypeptide seed- or leaf-specifically.
- 30 18. The use of the expression cassette as claimed in claim 11 as selection marker.
- 35 19. The use of a transformed plant as obtained in accordance with claim 17 or 18 for the production of a fungicide-binding polypeptide.
- 40 20. A process for the transformation of a plant by introducing a gene sequence which encodes a fungicide-binding polypeptide into a plant cell, into callus tissue, an entire plant and protoplasts of plant cells.

21. A process as claimed in claim 20, wherein transformation is effected with the aid of an agrobacterium, in particular of the species *Agrobacterium tumefaciens*.
- 5 22. A process as claimed in claim 20, wherein transformation is effected with the aid of electroporation.
- 10 23. A process as claimed in claim 20, wherein transformation is effected with the aid of the particle bombardment method.
- 15 24. The production of a fungicide-binding polypeptide by expressing a gene which encodes such a polypeptide in a plant or cells of a plant and subsequently isolating the polypeptide.
- 20 25. A plant comprising an expression cassette as claimed in claim 11, wherein the expression cassette imparts tolerance to a fungicide.
- 25 26. A plant as claimed in claim 25 which is tolerant to methyl methoxyimino- α -(o-tolyloxy)-o-tolylacetate (BAS 490F).
- 30 27. A method of controlling phytopathogenic fungi in transgenic fungicide-tolerant crop plants, which comprises the use of fungicides against which the crop plant forms fungicide-binding polypeptides or antibodies.
- 35 28. A fungicide-binding polypeptide or antibody with high binding affinity to methyl methoxyimino- α -(o-tolyloxy)-o-tolylacetate (BAS 490F) which is produced as claimed in claim 24.

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